tube. Place nameplate on top. Slide solenoid retainer over plunger tube until it snaps securely into place.

6 Solenoid Temperature

Standard catalog valves are supplied with coils designed for continuous duty service. When the solenoid is energized for a long period. the solenoid enclosure becomes hot and can be touched with the bare hand for only an instant. This is a safe operating temperature Excessive heating will be indicated by the smoke and odor of burning coil insulation.

Maintenance:

1. Cleaning

Periodic cleaning of solenoid valves is recommended. Frequency will depend on fluid and service. but should never be less than every 12 months or100,000 cycles whichever occurs first. In general, if the voltage to the coil is correct, sluggish operation. excessive leakage or noise will indicate cleaning or repair is required Clean valve filter or strainer when cleaning valve. See valve disassembly and reassembly instructions below.

2. Preventative Maintenance

a Keep media flowing through valve as free from dirt and foreign matter as possible.

b. While not in service, operate valve at least once a month to insure proper opening and closing.

c. Periodic inspection (depending on media and service conditions) of internal valve parts for damage or excessive wear is recommended. Inspect at least every 12 months or100,000 cycles, whichever occurs first. Thoroughly clean all parts. Replace worn or damaged parts with Gold Ring™ Spare Parts Kit. Use all parts for best results. Clean valve filter or strainer when cleaning valve.

3. Troubleshooting Guide

a. Faulty Controls Circuit

Check the electrical system by energizing the solenoid. A metallic click signifies solenoid is operating. Absence of click indicates loss of power supply. Check for loose or blown out fuses, open-circuit or grounded coil, broken lead wires or splices

b. Burned-Out Coil

Check for open-circuit coil. Replace Unit Solenoid if necessary.

c. Low Voltage

Check voltage across the coil lead. Voltage must be at least 85% of nameplate rating.

d. Incorrect Pressure

Check valve pressure. Pressure to valve must be within range specified on nameplate.

e. Excessive Leakage

Disassemble valve and clean all parts. Replace worn or damaged parts with a Gold Ring™ Spare Parts Kit. Use all parts for best results. Install filtration if indicated See valve disassembly and reassembly instructions.

4 Unit Solenoid Replacement

⚠ **WARNING:**

Turn off electrical power supply and disconnect coil lead wires. Refer to exploded views.

a. Remove solenoid retainer by inserting a 3/16" wide screwdriver between the top of the plunger tube and solenoid retainer. While holding the valve firmly gently twist screwdriver clockwise. Solenoid retainer will slip off.

b. Reassemble by sliding unit solenoid over plunger tube. Slide solenoid retainer over plunger tube until it snaps securely into place.

5. Valve Disassembly and Reassembly
(Refer to Exploded Views)

⚠ WARNING:

Turn off electrical power supply and line pressure. Disconnect coil lead wires. Bleed trapped pressure from lines.

a. Remove solenoid retainer by inserting a 3/16" wide screwdriver under tab on retainer and slide forward.

b. For 1/8" NPT (Figures 2 and 5), unscrew and remove bonnet, o-ring, plunger tube assembly, plunger assembly, spring, and body gasket.

For 1/4" and 3/8" NPT(Figures 1, 3, and 4), unscrew and remove plunger tube assembly, operator gasket, plunger, and spring.

For 1/2" and 3/4" NPT valves with small solenoids, unscrew the four cover screws, remove the plunger tube/cover assembly, plunger assembly, plunger spring , and body gasket.

For 1/2" and 3/4" NPT valves with large solenoids, unscrew the plunger tube assembly and remove operator gasket. On 1/2" NPT valves, the plunger assembly and spring can now be removed; on 3/4" NPT valves, the spring can now be removed.

c. All parts are now accessible for cleaning or replacement.